

# How Stages Correlates with Rhode Island Mathematics and English Language Arts Curricula<sup>1</sup>

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## Mathematics - Elementary School Content Standards with Process Standards

### 1. NUMBER SENSE AND NUMBER SYSTEMS

*Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 4 they will:*

- Have an intuitive understanding of whole numbers.
- Develop number meanings by exploring number relationships through counting, comparing, estimating, ordering, grouping, and patterning.
- Construct physical models to represent and demonstrate understanding of whole numbers, integers, fractions, and decimals.

#### ***Related Stages Assessment Activities:***

*Stage Four: Math Readiness:* Number ID, Counting, Patterns (Explore, Continue/Fill-In, Create)

*Stage Five: Math:* Explore and Assess Fractions

*Stage Six: Explore:* Money ID

*Assess:* Counting Money, Money Equivalents

### 2. COMPUTATION AND ESTIMATION

*Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 4 they will:*

- Use estimation for quantities, measurement, computation, and problem solving.
- Develop an understanding of the concepts of addition, subtraction, multiplication, and division, using concrete models.
- Demonstrate reasonable proficiency with basic facts and algorithms.
- Develop proficiency with addition, subtraction, multiplication, and division of whole numbers.

#### ***Related Stages Assessment Activities:***

*Stage Four: Math Readiness:* Estimating

*Stage Five: Math:* Geometry, Math Facts (+, -, x, ÷), Word Problems (+, -, x, ÷)

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<sup>1</sup> Information found in Rhode Island K-12 Mathematics and English Language Arts Standards by the Rhode Island Department of Education. Source: <http://www.ridoe.net/standards/frameworks/> (Accessed February 18, 2002).

### 3. MEASUREMENT

*Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 4 they will:*

- Identify and understand the concepts of length, [angle of measure], area, [capacity], volume, [mass], [temperature], time, and money.
- Have an intuitive understanding of the process of measurement.
- Compare and order objects according to some measurable attribute.

***Related Stages Assessment Activities:***

*Stage Five: Math: Geometry*

*Stage Six: Explore: Money ID, Time ID*

*Assess: Counting Money, Money Equivalents, Telling Time*

### 4. STATISTICS AND PROBABILITY

*Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 4 they will:*

- Draw conclusions and make predictions, using collected and recorded data.
- Read and interpret data.

***Related Stages Assessment Activities:***

*Stage Five: Math: Charts and Graphs*

*Problem Solving: Mystery Shape, Mystery Person, Number Guess*

### 5. PATTERNS, RELATIONS, AND ALGEBRA

*Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 4 they will:*

- Identify and describe patterns.
- Extend and create patterns.
- Use technology to explore patterns.

***Related Stages Assessment Activities:***

*Stage Four: Math Readiness: Explore Patterns, Continue/Fill-In Patterns, Create Patterns*

### 6. GEOMETRY

*Through problem-solving situations, all students will construct their own understanding, so that by the end of grade 4 they will:*

- Identify geometric shapes in the real world.
- Relate geometric ideas to number and measurement sense.
- Use geometry as a means of describing the physical world.

***Related Stages Assessment Activities:***

*Stage Four: Shapes: Explore and Assess*

*Stage Five: Math: Geometry*

## English Language Arts - Elementary School Standards with Level 1 (Grade K-4) Goals

**Standard 1. Communication - All students will be effective communicators in varied settings and for varied purposes.**

- Be aware of ways that communication is used to select, express, and accommodate personal interests, needs, and ideas of self and others.
- Develop listening and speaking behaviors that enhance verbal communication.
- Utilize listening, speaking, reading and writing to make and communicate decisions.

***Related Stages Assessment Activities:***

<i>Stage Three:</i>	<i>All:</i> The learner communicates choice of activity and preferred level of graphic representation (photo, drawing, or symbol) using an appropriate input device.
<i>Stage Four:</i>	<i>All:</i> The learner selects items to explore and makes choices in response to identification questions using an appropriate input device.
<i>Stage Six:</i>	<i>All:</i> The learner chooses responses to questions, explores different topics, chooses a story to read (or listen to) using an appropriate input device.

**Standard 2. Response to text - All students will demonstrate the ability to understand and respond to a wide variety of text.**

- Develop and use strategies for understanding a variety of print and non-print materials.
- Respond to a variety of print and non-print materials.

***Related Stages Assessment Activities:***

<i>Stage Four:</i>	<i>Reading Readiness:</i> Letter ID, Letter Sounds <i>Math Readiness:</i> Explore Compare, Estimating, Spatial Relationships
<i>Stage Five:</i>	<i>Reading:</i> Letters, Sounds, Meaning, Context <i>Math:</i> Explore Charts and Graphs, Explore Fractions, Explore Geometry, Word Problems <i>Problem Solving:</i> Practice Mystery Game, Mystery Shape, Mystery Person
<i>Stage Six:</i>	<i>Stories:</i> Cody, Mitchell, Meg, Adam, Ryan
<i>Stage Seven:</i>	<i>Making Words:</i> High Frequency Words, Rhyming Words

**Standard 3. Creation and presentation of text - All students will compose clear text in a variety of forms for many purposes.**

- Generate draft and revise ideas, begin editing for conventions, share and publish text with guidance.
- Apply basic conventions of standard language with guidance.

***Related Stages Assessment Activities:***

<i>Stage Seven:</i>	<i>Making Sentences:</i> Building Sentences, Spelling and Grammar, Writing Sentences <i>Making Stories</i>
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**Standard 4. Student voice - All students will demonstrate the power and effectiveness of voice through the language arts.**

- Speak out and write on ideas topics and stories of personal significance.

***Related Stages Assessment Activities:***

*Stage Seven: Making Stories*

**Standard 5. Awareness and evaluation of learning processes - All students will know the processes used to construct and convey meaning through text. They will develop and apply criteria for the evaluation and appreciation of the own and others' text.**

- Express what they like about their own and others' text.

***Related Stages Assessment Activities:***

*Stage Seven: Making Stories*